

# SEQUENCE LISTING

<110> Pedersen, Susanne  
 Cole, Robert  
 Wienberger, Ron  
 Sloane, Andrew

<120> Method of isolating a protein

<130> FBR0005-100

<140> 10/562,132

<150> AU 2003903317

<151> 2003-06-27

<150> PCT/AU2004/00856

<151> 2004-06-28

<160> 26

<170> PatentIn version 3.3

<210> 1

<211> 593

<212> PRT

<213> Streptococcus sp.

<400> 1

Met	Glu	Lys	Glu	Lys	Lys	Val	Lys	Tyr	Phe	Leu	Arg	Lys	Ser	Ala	Phe
1				5					10					15	

Gly	Leu	Ala	Ser	Val	Ser	Ala	Ala	Phe	Leu	Val	Gly	Ser	Thr	Val	Phe
			20					25					30		

Ala	Val	Asp	Ser	Pro	Ile	Glu	Asp	Thr	Pro	Ile	Ile	Arg	Asn	Gly	Gly
		35					40					45			

Glu	Leu	Thr	Asn	Leu	Leu	Gly	Asn	Ser	Glu	Thr	Thr	Leu	Ala	Leu	Arg
	50					55					60				

Asn	Glu	Glu	Ser	Ala	Thr	Ala	Asp	Leu	Thr	Ala	Ala	Ala	Val	Ala	Asp
65					70					75				80	

Thr	Val	Ala	Ala	Ala	Ala	Ala	Glu	Asn	Ala	Gly	Ala	Ala	Ala	Trp	Glu
			85						90					95	

Ala	Ala	Ala	Ala	Ala	Asp	Ala	Leu	Ala	Lys	Ala	Lys	Ala	Asp	Ala	Leu
			100					105					110		

Lys Glu Phe Asn Lys Tyr Gly Val Ser Asp Tyr Tyr Lys Asn Leu Ile  
115 120 125

Asn Asn Ala Lys Thr Val Glu Gly Val Lys Asp Leu Gln Ala Gln Val  
130 135 140

Val Glu Ser Ala Lys Lys Ala Arg Ile Ser Glu Ala Thr Asp Gly Leu  
145 150 155 160

Ser Asp Phe Leu Lys Ser Gln Thr Pro Ala Glu Asp Thr Val Lys Ser  
165 170 175

Ile Glu Leu Ala Glu Ala Lys Val Leu Ala Asn Arg Glu Leu Asp Lys  
180 185 190

Tyr Gly Val Ser Asp Tyr His Lys Asn Leu Ile Asn Asn Ala Lys Thr  
195 200 205

Val Glu Gly Val Lys Asp Leu Gln Ala Gln Val Val Glu Ser Ala Lys  
210 215 220

Lys Ala Arg Ile Ser Glu Ala Thr Asp Gly Leu Ser Asp Phe Leu Lys  
225 230 235 240

Ser Gln Thr Pro Ala Glu Asp Thr Val Lys Ser Ile Glu Leu Ala Glu  
245 250 255

Ala Lys Val Leu Ala Asn Arg Glu Leu Asp Lys Tyr Gly Val Ser Asp  
260 265 270

Tyr Tyr Lys Asn Leu Ile Asn Asn Ala Lys Thr Val Glu Gly Val Lys  
275 280 285

Ala Leu Ile Asp Glu Ile Leu Ala Ala Leu Pro Lys Thr Asp Thr Tyr  
290 295 300

Lys Leu Ile Leu Asn Gly Lys Thr Leu Lys Gly Glu Thr Thr Thr Glu  
305 310 315 320

Ala Val Asp Ala Ala Thr Ala Glu Lys Val Phe Lys Gln Tyr Ala Asn  
325 330 335

Asp Asn Gly Val Asp Gly Glu Trp Thr Tyr Asp Asp Ala Thr Lys Thr  
 340 345 350

Phe Thr Val Thr Glu Lys Pro Glu Val Ile Asp Ala Ser Glu Leu Thr  
 355 360 365

Pro Ala Val Thr Thr Tyr Lys Leu Val Ile Asn Gly Lys Thr Leu Lys  
 370 375 380

Gly Glu Thr Thr Thr Glu Ala Val Asp Ala Ala Thr Ala Glu Lys Val  
 385 390 395 400

Phe Lys Gln Tyr Ala Asn Asp Asn Gly Val Asp Gly Glu Trp Thr Tyr  
 405 410 415

Asp Asp Ala Thr Lys Thr Phe Thr Val Thr Glu Lys Pro Glu Val Ile  
 420 425 430

Asp Ala Ser Glu Leu Thr Pro Ala Val Thr Thr Tyr Lys Leu Val Ile  
 435 440 445

Asn Gly Lys Thr Leu Lys Gly Glu Thr Thr Thr Lys Ala Val Asp Ala  
 450 455 460

Glu Thr Ala Glu Lys Ala Phe Lys Gln Tyr Ala Asn Asp Asn Gly Val  
 465 470 475 480

Asp Gly Val Trp Thr Tyr Asp Asp Ala Thr Lys Thr Phe Thr Val Thr  
 485 490 495

Glu Met Val Thr Glu Val Pro Gly Asp Ala Pro Thr Glu Pro Glu Lys  
 500 505 510

Pro Glu Ala Ser Ile Pro Leu Val Pro Leu Thr Pro Ala Thr Pro Ile  
 515 520 525

Ala Lys Asp Asp Ala Lys Lys Asp Asp Thr Lys Lys Glu Asp Ala Lys  
 530 535 540

Lys Pro Glu Ala Lys Lys Glu Asp Ala Lys Lys Ala Glu Thr Leu Pro  
 545 550 555 560

Thr Thr Gly Glu Gly Ser Asn Pro Phe Phe Thr Ala Ala Ala Leu Ala

565

570

575

Val Met Ala Gly Ala Gly Ala Leu Ala Val Ala Ser Lys Arg Lys Glu  
 580 585 590

Asp

<210> 2  
 <211> 454  
 <212> PRT  
 <213> Staphylococcus aureus

&lt;400&gt; 2

Met Met Thr Leu Gln Ile His Thr Gly Gly Ile Asn Leu Lys Lys Lys  
 1 5 10 15

Asn Ile Tyr Ser Ile Arg Lys Leu Gly Val Gly Ile Ala Ser Val Thr  
 20 25 30

Leu Gly Thr Leu Leu Ile Ser Gly Gly Val Thr Pro Ala Ala Asn Ala  
 35 40 45

Ala Gln His Asp Glu Ala Gln Gln Asn Ala Phe Tyr Gln Val Leu Asn  
 50 55 60

Met Pro Asn Leu Asn Ala Asp Gln Arg Asn Gly Phe Ile Gln Ser Leu  
 65 70 75 80

Lys Asp Asp Pro Ser Gln Ser Ala Asn Val Leu Gly Glu Ala Gln Lys  
 85 90 95

Leu Asn Asp Ser Gln Ala Pro Lys Ala Asp Ala Gln Gln Asn Lys Phe  
 100 105 110

Asn Lys Asp Gln Gln Ser Ala Phe Tyr Glu Ile Leu Asn Met Pro Asn  
 115 120 125

Leu Asn Glu Glu Gln Arg Asn Gly Phe Ile Gln Ser Leu Lys Asp Asp  
 130 135 140

Pro Ser Gln Ser Thr Asn Val Leu Gly Glu Ala Lys Lys Leu Asn Glu  
 145 150 155 160

Ser Gln Ala Pro Lys Ala Asp Asn Asn Phe Asn Lys Glu Gln Gln Asn  
165 170 175

Ala Phe Tyr Glu Ile Leu Asn Met Pro Asn Leu Asn Glu Glu Gln Arg  
180 185 190

Asn Gly Phe Ile Gln Ser Leu Lys Asp Asp Pro Ser Gln Ser Ala Asn  
195 200 205

Leu Leu Ala Glu Ala Lys Lys Leu Asn Asp Ala Gln Ala Pro Lys Ala  
210 215 220

Asp Asn Lys Phe Asn Lys Glu Gln Gln Asn Ala Phe Tyr Glu Ile Leu  
225 230 235 240

His Leu Pro Asn Leu Thr Glu Glu Gln Arg Asn Gly Phe Ile Gln Ser  
245 250 255

Leu Lys Asp Asp Pro Ser Val Ser Lys Glu Ile Leu Ala Glu Ala Lys  
260 265 270

Lys Leu Asn Asp Ala Gln Ala Pro Lys Glu Glu Asp Asn Asn Lys Pro  
275 280 285

Gly Lys Glu Asp Asn Asn Lys Pro Gly Lys Glu Asp Gly Asn Lys Pro  
290 295 300

Gly Lys Glu Asp Asn Lys Lys Pro Gly Lys Glu Asp Gly Asn Lys Pro  
305 310 315 320

Gly Lys Glu Asp Asn Lys Lys Pro Gly Lys Glu Asp Gly Asn Lys Pro  
325 330 335

Gly Lys Glu Asp Gly Asn Lys Pro Gly Lys Glu Asp Gly Asn Lys Pro  
340 345 350

Gly Lys Glu Asp Gly Asn Gly Val His Val Val Lys Pro Gly Asp Thr  
355 360 365

Val Asn Asp Ile Ala Lys Ala Asn Gly Thr Thr Ala Asp Lys Ile Ala  
370 375 380

Val Asp Asn Lys Leu Ala Asp Lys Asn Met Ile Lys Pro Gly Gln Glu  
 385 390 395 400

Leu Val Val Asp Lys Lys Gln Pro Ala Asn His Ala Asp Ala Asn Lys  
 405 410 415

Ala Gln Ala Leu Pro Glu Thr Gly Glu Glu Asn Pro Phe Ile Gly Thr  
 420 425 430

Thr Val Phe Gly Gly Leu Ser Leu Ala Leu Gly Ala Ala Leu Leu Ala  
 435 440 445

Gly Arg Arg Arg Glu Leu  
 450

<210> 3  
 <211> 719  
 <212> PRT  
 <213> Peptostreptococcus magnus

<400> 3

Met Ala Ala Leu Ala Gly Ala Ile Val Val Thr Gly Gly Val Gly Ser  
 1 5 10 15

Tyr Ala Ala Asp Glu Pro Ile Asp Leu Glu Lys Leu Glu Glu Lys Arg  
 20 25 30

Asp Lys Glu Asn Val Gly Asn Leu Pro Lys Phe Asp Asn Glu Val Lys  
 35 40 45

Asp Gly Ser Glu Asn Pro Met Ala Lys Tyr Pro Asp Phe Asp Asp Glu  
 50 55 60

Ala Ser Thr Arg Phe Glu Thr Glu Asn Asn Glu Phe Glu Glu Lys Lys  
 65 70 75 80

Val Val Ser Asp Asn Phe Phe Asp Gln Ser Glu His Pro Phe Val Glu  
 85 90 95

Asn Lys Glu Glu Thr Pro Glu Thr Pro Glu Thr Asp Ser Glu Glu Glu  
 100 105 110

Val Thr Ile Lys Ala Asn Leu Ile Phe Ala Asn Gly Ser Thr Gln Thr  
 115 120 125

Ala Glu Phe Lys Gly Thr Phe Glu Lys Ala Thr Ser Glu Ala Tyr Ala  
 130 135 140

Tyr Ala Asp Thr Leu Lys Lys Asp Asn Gly Glu Tyr Thr Val Asp Val  
 145 150 155 160

Ala Asp Lys Gly Tyr Thr Leu Asn Ile Lys Phe Ala Gly Lys Glu Lys  
 165 170 175

Thr Pro Glu Glu Pro Lys Glu Glu Val Thr Ile Lys Ala Asn Leu Ile  
 180 185 190

Tyr Ala Asp Gly Lys Thr Gln Thr Ala Glu Phe Lys Gly Thr Phe Glu  
 195 200 205

Glu Ala Thr Ala Glu Ala Tyr Arg Tyr Ala Asp Ala Leu Lys Lys Asp  
 210 215 220

Asn Gly Glu Tyr Thr Val Asp Val Ala Asp Lys Gly Tyr Thr Leu Asn  
 225 230 235 240

Ile Lys Phe Ala Gly Lys Glu Lys Thr Pro Glu Glu Pro Lys Glu Glu  
 245 250 255

Val Thr Ile Lys Ala Asn Leu Ile Tyr Ala Asp Gly Lys Thr Gln Thr  
 260 265 270

Ala Glu Phe Lys Gly Thr Phe Glu Glu Ala Thr Ala Glu Ala Tyr Arg  
 275 280 285

Tyr Ala Asp Leu Leu Ala Lys Glu Asn Gly Lys Tyr Thr Val Asp Val  
 290 295 300

Ala Asp Lys Gly Tyr Thr Leu Asn Ile Lys Phe Ala Gly Lys Glu Lys  
 305 310 315 320

Thr Pro Glu Glu Pro Lys Glu Glu Val Thr Ile Lys Ala Asn Leu Ile  
 325 330 335

Tyr Ala Asp Gly Lys Thr Gln Thr Ala Glu Phe Lys Gly Thr Phe Ala  
 340 345 350

Glu Ala Thr Ala Glu Ala Tyr Arg Tyr Ala Asp Leu Leu Ala Lys Glu  
 355 360 365

Asn Gly Lys Tyr Thr Ala Asp Leu Glu Asp Gly Gly Tyr Thr Ile Asn  
 370 375 380

Ile Arg Phe Ala Gly Lys Lys Val Asp Glu Lys Pro Glu Glu Lys Glu  
 385 390 395 400

Gln Val Thr Ile Lys Glu Asn Ile Tyr Phe Glu Asp Gly Thr Val Gln  
 405 410 415

Thr Ala Thr Phe Lys Gly Thr Phe Ala Glu Ala Thr Ala Glu Ala Tyr  
 420 425 430

Arg Tyr Ala Asp Leu Leu Ser Lys Glu His Gly Lys Tyr Thr Ala Asp  
 435 440 445

Leu Glu Asp Gly Gly Tyr Thr Ile Asn Ile Arg Phe Ala Gly Lys Glu  
 450 455 460

Glu Pro Glu Glu Thr Pro Glu Lys Pro Glu Val Gln Asp Gly Tyr Ala  
 465 470 475 480

Ser Tyr Glu Glu Ala Glu Ala Ala Ala Lys Glu Ala Leu Lys Asn Asp  
 485 490 495

Asp Val Asn Lys Ser Tyr Thr Ile Arg Gln Gly Ala Asp Gly Arg Tyr  
 500 505 510

Tyr Tyr Val Leu Ser Pro Val Glu Ala Glu Glu Glu Lys Pro Glu Ala  
 515 520 525

Gln Asn Gly Tyr Ala Thr Tyr Glu Glu Ala Glu Ala Ala Lys Lys  
 530 535 540

Ala Leu Glu Asn Asp Pro Ile Asn Lys Ser Tyr Ser Ile Arg Gln Gly  
 545 550 555 560

Ala Asp Gly Arg Tyr Tyr Tyr Val Leu Ser Pro Val Glu Ala Glu Thr  
 565 570 575

Pro Glu Lys Pro Val Glu Pro Ser Glu Pro Ser Thr Pro Asp Val Pro  
580 585 590

Ser Asn Pro Ser Asn Pro Ser Thr Pro Asp Val Pro Ser Thr Pro Asp  
595 600 605

Val Pro Ser Asn Pro Ser Thr Pro Glu Val Pro Ser Asn Pro Ser Thr  
610 615 620

Pro Gly Asn Glu Glu Lys Pro Gly Asn Glu Gln Lys Pro Gly Asn Glu  
625 630 635 640

Gln Lys Pro Gly Asn Glu Gln Lys Pro Gly Asn Glu Gln Lys Pro Gly  
645 650 655

Asn Glu Gln Lys Pro Asp Gln Pro Ser Lys Pro Glu Lys Glu Glu Asn  
660 665 670

Gly Lys Gly Gly Val Asp Ser Pro Lys Lys Lys Glu Lys Ala Ala Leu  
675 680 685

Pro Lys Ala Gly Ser Glu Ala Glu Ile Leu Thr Leu Ala Ala Ala Ser  
690 695 700

Leu Ser Ser Val Ala Gly Ala Phe Ile Ser Leu Lys Lys Arg Lys  
705 710 715

<210> 4

<211> 20

<212> PRT

<213> artificial sequence

<220>

<223> protein A mimetic polypeptide

<400> 4

Glu Gln Gln Asn Ala Phe Tyr Glu Ile Leu His Leu Pro Asn Leu Asn  
1 5 10 15

Glu Glu Gln Arg  
20

<210> 5

<211> 16

<212> PRT

<213> Artificial

<220>

<223> protein A mimetic polypeptide

<400> 5

Arg Thr Tyr Arg Thr Tyr Arg Thr Tyr Arg Thr Tyr Lys Lys Lys Gly  
1 5 10 15

<210> 6

<211> 18

<212> PRT

<213> Mycobacterium tuberculosis

<400> 6

Phe Glu Ala Val Lys Gly Glu Cys Asn Met Gly Gln Gln Glu Ile Gly  
1 5 10 15

Phe Arg

<210> 7

<211> 15

<212> PRT

<213> Mycobacterium tuberculosis

<400> 7

Glu Ile Ala Asp Gln His Gly Lys Ser Leu Thr Phe Met Ala Lys  
1 5 10 15

<210> 8

<211> 14

<212> PRT

<213> Mycobacterium tuberculosis

<400> 8

Glu Phe Thr Leu Cys Tyr Ala Pro Thr Ile Asn Ser Tyr Lys  
1 5 10

<210> 9

<211> 9

<212> PRT

<213> Mycobacterium tuberculosis

<400> 9

Val Val Gly His Gly Gln Asn Ile Arg  
1 5

<210> 10  
 <211> 19  
 <212> PRT  
 <213> Mycobacterium tuberculosis

<400> 10

Leu Pro Val Thr Leu Ala Asp Ala Ala Val Leu Phe Glu Asp Ser Ala  
 1 5 10 15

Leu Val Arg

<210> 11  
 <211> 15  
 <212> PRT  
 <213> Mycobacterium tuberculosis

<400> 11

Val Glu Leu Ala Ala Phe Asn Ala Ala Val Thr Asp Trp Glu Arg  
 1 5 10 15

<210> 12  
 <211> 457  
 <212> PRT  
 <213> Mycobacterium tuberculosis

<400> 12

Met Thr Gly Pro Gly Ser Pro Pro Leu Ala Trp Thr Glu Leu Glu Arg  
 1 5 10 15

Leu Val Ala Ala Gly Asp Val Asp Thr Val Ile Val Ala Phe Thr Asp  
 20 25 30

Met Gln Gly Arg Leu Ala Gly Lys Arg Ile Ser Gly Arg His Phe Val  
 35 40 45

Asp Asp Ile Ala Thr Arg Gly Val Glu Cys Cys Ser Tyr Leu Leu Ala  
 50 55 60

Val Asp Val Asp Leu Asn Thr Val Pro Gly Tyr Ala Met Ala Ser Trp  
 65 70 75 80

Asp Thr Gly Tyr Gly Asp Met Val Met Thr Pro Asp Leu Ser Thr Leu  
 85 90 95

Arg Leu Ile Pro Trp Leu Pro Gly Thr Ala Leu Val Ile Ala Asp Leu  
100 105 110

Val Trp Ala Asp Gly Ser Glu Val Ala Val Ser Pro Arg Ser Ile Leu  
115 120 125

Arg Arg Gln Leu Asp Arg Leu Lys Ala Arg Gly Leu Val Ala Asp Val  
130 135 140

Ala Thr Glu Leu Glu Phe Ile Val Phe Asp Gln Pro Tyr Arg Gln Ala  
145 150 155 160

Trp Ala Ser Gly Tyr Arg Gly Leu Thr Pro Ala Ser Asp Tyr Asn Ile  
165 170 175

Asp Tyr Ala Ile Leu Ala Ser Ser Arg Met Glu Pro Leu Leu Arg Asp  
180 185 190

Ile Arg Leu Gly Met Ala Gly Ala Gly Leu Arg Phe Glu Ala Val Lys  
195 200 205

Gly Glu Cys Asn Met Gly Gln Gln Glu Ile Gly Phe Arg Tyr Asp Glu  
210 215 220

Ala Leu Val Thr Cys Asp Asn His Ala Ile Tyr Lys Asn Gly Ala Lys  
225 230 235 240

Glu Ile Ala Asp Gln His Gly Lys Ser Leu Thr Phe Met Ala Lys Tyr  
245 250 255

Asp Glu Arg Glu Gly Asn Ser Cys His Ile His Val Ser Leu Arg Gly  
260 265 270

Thr Asp Gly Ser Ala Val Phe Ala Asp Ser Asn Gly Pro His Gly Met  
275 280 285

Ser Ser Met Phe Arg Ser Phe Val Ala Gly Gln Leu Ala Thr Leu Arg  
290 295 300

Glu Phe Thr Leu Cys Tyr Ala Pro Thr Ile Asn Ser Tyr Lys Arg Phe  
305 310 315 320

Ala Asp Ser Ser Phe Ala Pro Thr Ala Leu Ala Trp Gly Leu Asp Asn  
 325 330 335

Arg Thr Cys Ala Leu Arg Val Val Gly His Gly Gln Asn Ile Arg Val  
 340 345 350

Glu Cys Arg Val Pro Gly Gly Asp Val Asn Gln Tyr Leu Ala Val Ala  
 355 360 365

Ala Leu Ile Ala Gly Gly Leu Tyr Gly Ile Glu Arg Gly Leu Gln Leu  
 370 375 380

Pro Glu Pro Cys Val Gly Asn Ala Tyr Gln Gly Ala Asp Val Glu Arg  
 385 390 395 400

Leu Pro Val Thr Leu Ala Asp Ala Ala Val Leu Phe Glu Asp Ser Ala  
 405 410 415

Leu Val Arg Glu Ala Phe Gly Glu Asp Val Val Ala His Tyr Leu Asn  
 420 425 430

Asn Ala Arg Val Glu Leu Ala Ala Phe Asn Ala Ala Val Thr Asp Trp  
 435 440 445

Glu Arg Ile Arg Gly Phe Glu Arg Leu  
 450 455

<210> 13  
 <211> 1191  
 <212> DNA  
 <213> Mycobacterium tuberculosis

<220>  
 <221> CDS  
 <222> (1)..(1191)

<400> 13  
 gtg gcg aag gcg aag ttc cag cgg acc aag ccc cac gtc aac atc ggg 48  
 Val Ala Lys Ala Lys Phe Gln Arg Thr Lys Pro His Val Asn Ile Gly  
 1 5 10 15  
 acc atc ggt cac gtt gac cac ggc aag acc acc ctg acc gcg gct atc 96  
 Thr Ile Gly His Val Asp His Gly Lys Thr Thr Leu Thr Ala Ala Ile  
 20 25 30  
 acc aag gtc ctg cac gac aaa ttc ccc gat ctg aac gag acg aag gca 144

Thr	Lys	Val	Leu	His	Asp	Lys	Phe	Pro	Asp	Leu	Asn	Glu	Thr	Lys	Ala		
		35					40					45					
ttc	gac	cag	atc	gac	aac	gcc	ccc	gag	gag	cgt	cag	cgc	ggc	atc	acc		192
Phe	Asp	Gln	Ile	Asp	Asn	Ala	Pro	Glu	Glu	Arg	Gln	Arg	Gly	Ile	Thr		
	50					55					60						
atc	aac	atc	gcg	cac	gtg	gag	tac	cag	acc	gac	aag	cgg	cac	tac	gca		240
Ile	Asn	Ile	Ala	His	Val	Glu	Tyr	Gln	Thr	Asp	Lys	Arg	His	Tyr	Ala		
	65				70					75					80		
cac	gtc	gac	gcc	cct	ggc	cac	gcc	gac	tac	atc	aag	aac	atg	atc	acc		288
His	Val	Asp	Ala	Pro	Gly	His	Ala	Asp	Tyr	Ile	Lys	Asn	Met	Ile	Thr		
				85					90					95			
ggc	gcc	gcg	cag	atg	gac	ggc	gcg	atc	ctg	gtg	gtc	gcc	gcc	acc	gac		336
Gly	Ala	Ala	Gln	Met	Asp	Gly	Ala	Ile	Leu	Val	Val	Ala	Ala	Thr	Asp		
			100					105					110				
ggc	ccg	atg	ccc	cag	acc	cgc	gag	cac	gtt	ctg	ctg	gcg	cgt	caa	gtg		384
Gly	Pro	Met	Pro	Gln	Thr	Arg	Glu	His	Val	Leu	Leu	Ala	Arg	Gln	Val		
		115						120					125				
ggc	gtg	ccc	tac	atc	ctg	gta	gcg	ctg	aac	aag	gcc	gac	gca	gtg	gac		432
Gly	Val	Pro	Tyr	Ile	Leu	Val	Ala	Leu	Asn	Lys	Ala	Asp	Ala	Val	Asp		
	130					135					140						
gac	gag	gag	ctg	ctc	gaa	ctc	gtc	gag	atg	gag	gtc	cgc	gag	ctg	ctg		480
Asp	Glu	Glu	Leu	Leu	Glu	Leu	Val	Glu	Met	Glu	Val	Arg	Glu	Leu	Leu		
	145				150					155					160		
gct	gcc	cag	gaa	ttc	gac	gag	gac	gcc	ccg	gtt	gtg	cgg	gtc	tcg	gcg		528
Ala	Ala	Gln	Glu	Phe	Asp	Glu	Asp	Ala	Pro	Val	Val	Arg	Val	Ser	Ala		
				165					170					175			
ctc	aag	gcg	ctc	gag	ggc	gac	gcg	aag	tgg	gtt	gcc	tct	gtc	gag	gaa		576
Leu	Lys	Ala	Leu	Glu	Gly	Asp	Ala	Lys	Trp	Val	Ala	Ser	Val	Glu	Glu		
			180					185					190				
ctg	atg	aac	gcg	gtc	gac	gag	tcg	att	ccg	gac	ccg	gtc	cgc	gag	acc		624
Leu	Met	Asn	Ala	Val	Asp	Glu	Ser	Ile	Pro	Asp	Pro	Val	Arg	Glu	Thr		
		195					200					205					
gac	aag	ccg	ttc	ctg	atg	ccg	gtc	gag	gac	gtc	ttc	acc	att	acc	ggc		672
Asp	Lys	Pro	Phe	Leu	Met	Pro	Val	Glu	Asp	Val	Phe	Thr	Ile	Thr	Gly		
	210					215					220						
cgc	gga	acc	gtg	gtc	acc	gga	cgt	gtg	gag	cgc	ggc	gtg	atc	aac	gtg		720
Arg	Gly	Thr	Val	Val	Thr	Gly	Arg	Val	Glu	Arg	Gly	Val	Ile	Asn	Val		
	225				230					235					240		
aac	gag	gaa	gtt	gag	atc	gtc	ggc	att	cgc	cca	tcg	acc	acc	aag	acc		768
Asn	Glu	Glu	Val	Glu	Ile	Val	Gly	Ile	Arg	Pro	Ser	Thr	Thr	Lys	Thr		
				245				250						255			
acc	gtc	acc	ggc	gtg	gag	atg	ttc	cgc	aag	ctg	ctc	gac	cag	ggc	cag		816
Thr	Val	Thr	Gly	Val	Glu	Met	Phe	Arg	Lys	Leu	Leu	Asp	Gln	Gly	Gln		

260	265	270	
gcg ggc gac aac gtt ggt ttg ctg ctg cgg ggc gtc aag cgc gag gac			864
Ala Gly Asp Asn Val Gly Leu Leu Leu Arg Gly Val Lys Arg Glu Asp			
275	280	285	
gtc gag cgt ggc cag gtt gtc acc aag ccc ggc acc acc acg ccg cac			912
Val Glu Arg Gly Gln Val Val Thr Lys Pro Gly Thr Thr Thr Pro His			
290	295	300	
acc gag ttc gaa ggc cag gtc tac atc ctg tcc aag gac gag ggc ggc			960
Thr Glu Phe Glu Gly Gln Val Tyr Ile Leu Ser Lys Asp Glu Gly Gly			
305	310	315	320
cgg cac acg ccg ttc ttc aac aac tac cgt ccg cag ttc tac ttc cgc			1008
Arg His Thr Pro Phe Phe Asn Asn Tyr Arg Pro Gln Phe Tyr Phe Arg			
325	330	335	
acc acc gac gtg acc ggt gtg gtg aca ctg ccg gag ggc acc gag atg			1056
Thr Thr Asp Val Thr Gly Val Val Thr Leu Pro Glu Gly Thr Glu Met			
340	345	350	
gtg atg ccc ggt gac aac acc aac atc tcg gtg aag ttg atc cag ccc			1104
Val Met Pro Gly Asp Asn Thr Asn Ile Ser Val Lys Leu Ile Gln Pro			
355	360	365	
gtc gcc atg gac gaa ggt ctg cgt ttc gcg atc cgc gag ggt ggc cgc			1152
Val Ala Met Asp Glu Gly Leu Arg Phe Ala Ile Arg Glu Gly Gly Arg			
370	375	380	
acc gtg ggc gcc ggc cgg gtc acc aag atc atc aag tag			1191
Thr Val Gly Ala Gly Arg Val Thr Lys Ile Ile Lys			
385	390	395	

<210> 14  
 <211> 396  
 <212> PRT  
 <213> Mycobacterium tuberculosis

<400> 14

Val Ala Lys Ala Lys Phe Gln Arg Thr Lys Pro His Val Asn Ile Gly	
1	15
Thr Ile Gly His Val Asp His Gly Lys Thr Thr Leu Thr Ala Ala Ile	
20	30
Thr Lys Val Leu His Asp Lys Phe Pro Asp Leu Asn Glu Thr Lys Ala	
35	45
Phe Asp Gln Ile Asp Asn Ala Pro Glu Glu Arg Gln Arg Gly Ile Thr	
50	60

Ile Asn Ile Ala His Val Glu Tyr Gln Thr Asp Lys Arg His Tyr Ala  
65 70 75 80

His Val Asp Ala Pro Gly His Ala Asp Tyr Ile Lys Asn Met Ile Thr  
85 90 95

Gly Ala Ala Gln Met Asp Gly Ala Ile Leu Val Val Ala Ala Thr Asp  
100 105 110

Gly Pro Met Pro Gln Thr Arg Glu His Val Leu Leu Ala Arg Gln Val  
115 120 125

Gly Val Pro Tyr Ile Leu Val Ala Leu Asn Lys Ala Asp Ala Val Asp  
130 135 140

Asp Glu Glu Leu Leu Glu Leu Val Glu Met Glu Val Arg Glu Leu Leu  
145 150 155 160

Ala Ala Gln Glu Phe Asp Glu Asp Ala Pro Val Val Arg Val Ser Ala  
165 170 175

Leu Lys Ala Leu Glu Gly Asp Ala Lys Trp Val Ala Ser Val Glu Glu  
180 185 190

Leu Met Asn Ala Val Asp Glu Ser Ile Pro Asp Pro Val Arg Glu Thr  
195 200 205

Asp Lys Pro Phe Leu Met Pro Val Glu Asp Val Phe Thr Ile Thr Gly  
210 215 220

Arg Gly Thr Val Val Thr Gly Arg Val Glu Arg Gly Val Ile Asn Val  
225 230 235 240

Asn Glu Glu Val Glu Ile Val Gly Ile Arg Pro Ser Thr Thr Lys Thr  
245 250 255

Thr Val Thr Gly Val Glu Met Phe Arg Lys Leu Leu Asp Gln Gly Gln  
260 265 270

Ala Gly Asp Asn Val Gly Leu Leu Leu Arg Gly Val Lys Arg Glu Asp  
275 280 285

Val Glu Arg Gly Gln Val Val Thr Lys Pro Gly Thr Thr Thr Pro His  
 290 295 300

Thr Glu Phe Glu Gly Gln Val Tyr Ile Leu Ser Lys Asp Glu Gly Gly  
 305 310 315 320

Arg His Thr Pro Phe Phe Asn Asn Tyr Arg Pro Gln Phe Tyr Phe Arg  
 325 330 335

Thr Thr Asp Val Thr Gly Val Val Thr Leu Pro Glu Gly Thr Glu Met  
 340 345 350

Val Met Pro Gly Asp Asn Thr Asn Ile Ser Val Lys Leu Ile Gln Pro  
 355 360 365

Val Ala Met Asp Glu Gly Leu Arg Phe Ala Ile Arg Glu Gly Gly Arg  
 370 375 380

Thr Val Gly Ala Gly Arg Val Thr Lys Ile Ile Lys  
 385 390 395

<210> 15  
 <211> 17  
 <212> PRT  
 <213> Mycobacterium tuberculosis

<400> 15

Lys Leu Leu Asp Gln Gly Gln Ala Gly Asp Asn Val Gly Leu Leu Leu  
 1 5 10 15

Arg

<210> 16  
 <211> 7  
 <212> PRT  
 <213> Pseudomonas aeruginosa

<400> 16

Leu Arg Pro Leu His Asp Arg  
 1 5

<210> 17  
 <211> 10

<212> PRT  
<213> Pseudomonas aeruginosa

<400> 17

Gly Glu Val Val Ala Val Gly Thr Gly Arg  
1 5 10

<210> 18  
<211> 9  
<212> PRT  
<213> Pseudomonas aeruginosa

<400> 18

Met Lys Leu Arg Pro Leu His Asp Arg  
1 5

<210> 19  
<211> 9  
<212> PRT  
<213> Pseudomonas aeruginosa

<400> 19

Met Lys Leu Arg Pro Leu His Asp Arg  
1 5

<210> 20  
<211> 13  
<212> PRT  
<213> Pseudomonas aeruginosa

<400> 20

Val Val Phe Gly Pro Tyr Ser Gly Ser Asn Ala Ile Lys  
1 5 10

<210> 21  
<211> 11  
<212> PRT  
<213> Pseudomonas aeruginosa

<400> 21

Leu Arg Pro Leu His Asp Arg Val Val Ile Arg  
1 5 10

<210> 22  
<211> 13  
<212> PRT  
<213> Pseudomonas aeruginosa

<400> 22

Val Leu Asp Asn Gly Glu Val Arg Ala Leu Ala Val Lys  
1 5 10

<210> 23

<211> 17

<212> PRT

<213> Pseudomonas aeruginosa

<400> 23

Thr Ala Gly Gly Ile Val Leu Pro Gly Ser Ala Ala Glu Lys Pro Asn  
1 5 10 15

Arg

<210> 24

<211> 17

<212> PRT

<213> Pseudomonas aeruginosa

<400> 24

Val Gly Asp Lys Val Val Phe Gly Pro Tyr Ser Gly Ser Asn Ala Ile  
1 5 10 15

Lys

<210> 25

<211> 97

<212> PRT

<213> Pseudomonas aeruginosa

<400> 25

Met Lys Leu Arg Pro Leu His Asp Arg Val Val Ile Arg Arg Ser Glu  
1 5 10 15

Glu Glu Thr Lys Thr Ala Gly Gly Ile Val Leu Pro Gly Ser Ala Ala  
20 25 30

Glu Lys Pro Asn Arg Gly Glu Val Val Ala Val Gly Thr Gly Arg Val  
35 40 45

Leu Asp Asn Gly Glu Val Arg Ala Leu Ala Val Lys Val Gly Asp Lys

50

55

60

Val Val Phe Gly Pro Tyr Ser Gly Ser Asn Ala Ile Lys Val Asp Gly  
65 70 75 80

Glu Glu Leu Leu Val Met Gly Glu Ser Glu Ile Leu Ala Val Leu Glu  
85 90 95

Asp

<210> 26

<211> 114

<212> PRT

<213> homo sapiens

<400> 26

Met Thr Cys Lys Met Ser Gln Leu Glu Arg Asn Ile Glu Thr Ile Ile  
1 5 10 15

Asn Thr Phe His Gln Tyr Ser Val Lys Leu Gly His Pro Asp Thr Leu  
20 25 30

Asn Gln Gly Glu Phe Lys Glu Leu Val Arg Lys Asp Leu Gln Asn Phe  
35 40 45

Leu Lys Lys Glu Asn Lys Asn Glu Lys Val Ile Glu His Ile Met Glu  
50 55 60

Asp Leu Asp Thr Asn Ala Asp Lys Gln Leu Ser Phe Glu Glu Phe Ile  
65 70 75 80

Met Leu Met Ala Arg Leu Thr Trp Ala Ser His Glu Lys Met His Glu  
85 90 95

Gly Asp Glu Gly Pro Gly His His His Lys Pro Gly Leu Gly Glu Gly  
100 105 110

Thr Pro